

Periscope.

UNDER THE DIRECTION OF

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ANATOMICAL.

Anatomical Investigations, Chiefly With Gudden's Atrophy Method, Regarding the Nuclei of the X Nerve.

By Dr. Ossipow, (*Neurologisches Wiestnik*, Vol. III. No. 3.)

New born young cats and dogs were used for the experiments, which consisted in section (resection?) of the tenth nerve, in some cases above, in others below, the ganglion nodosum. The animals were allowed to live from three to ten weeks after the operation.

The following conditions were observed as secondary sequelæ of the lesions performed :

1. Atrophy of the roots of the X nerve on the operated side.
2. Atrophy of the posterior (dorsal) nucleus (the one with the small cells) of the X nerve on the operated side. The atrophy was especially marked in the higher levels, chiefly in the postero-internal part of the nucleus.
3. Marked atrophy on the operated side of that part of the ala cinerea which is situated caudad and lateral of the posterior nucleus of the X nerve.
4. Slightly marked atrophy of the nucleus ambiguus on the operated side.
5. Atrophy of the solitary (respiratory) bundle of the operated side up to its ending at the level of the apex portion of the decussation of the pyramidal tracts.
6. Distinct atrophy of the gelatinous substance accompanying the solitary bundle—on the operated side.
7. On both sides degenerative changes in the inner part of

the reticular formation (and in the anterior columns) in connection with the degeneration in the root fibres of the X nerves of the operated side. ONUF.

On the Nerve Cells of the Spinal Cord. By Dr. L. W. Blumendu, (*Neurologisches Wiestnik*, Vol. III. No. 4.)

B. examined chiefly the spinal cord of new born cats after Golgi's method. The result of his researches leads him to the following conclusions:

The physiological distribution of the various cells of the gray substance of the spinal cord (in mammals) is more or less the following:

1. The region of the root-cells corresponds to the anterolateral portion of the anterior horn.

2. The internal (mesial) part of the anterior horn is taken up chiefly by commissural cells.

3. The posterior horn and the lateral portion of the intermediate zone contain chiefly cells of the lateral column ("Seitenstrangzellen").

4. In the region of Clarke's columns commissural cells are found aside from cells of the lateral columns ("Lateralstrangzellen").

5. The posterior horn also contains cells of the posterior column ("Hinterstrangzellen").

6. Cells of the second type of Golgi are met with principally in the posterior horn, and in the gelatinous substance of Rolando. ONUF.

On the Relation of the Nucleus Reticularis Tegmenti to the System of Fibres Connecting the Frontal Lobe With the Pons. By A. Lasucki (*Neurologisches Wiestnik*, Vol. III. No. 3.)

Flechsig had described two tracts of fibres connecting the cerebral cortex with the gray matter of the pons. Becthterew had shown that these nuclei of the pons are in this locality connected with the reticular nucleus.

L. in the examination of the brain of a child, aged several weeks, stated that a direct connection, uninterrupted by cells of the pons nuclei or other cells, exists between the cortex of the frontal lobe and the reticular nucleus. Before the tract of fibres connecting the frontal lobe with the pons nuclei reaches the latter, part of the fibres separate themselves from the chief tract, and forming a circumscribed bundle curving around the pyramidal tract, pass inward and upward. Breaking through the fillet between its internal and middle third, mesially of the sixth root, this bundle continues towards the lateral side of the reticular nucleus and its fibres evidently end within this structure. ONUF.